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ABSTRACT

To be useful, educational needs assessment data must be properly collected, analyzed, and prioritized. Educators must ask parents, citizens, school staff, and students about their views of school needs. Likert-type instruments can be used to collect data that can be easily tabulated to determine highest priority needs. Typical forms (presented in the appendix) may cover general educational needs or specific subject areas, may require the respondent to prioritize needs, or may be simplified for elementary students. Educators will gather more responses from parents and citizens if the instruments are mailed near the end of the week, are short, include return envelopes, and guarantee that respondents will be informed of survey results. After data is collected, indexing formulas (included in the appendix) can be used to interpret and analyze the data. After highest priority needs are identified, these in turn must be ordered in terms of importance. Several models (contained in the appendix) for selecting highest priority needs through assessment committees and feasibility groups are possible. Some of these models stress help from lay persons, while others use more professional educators. After educators have responded to needs assessments, school boards should assess the legitimacy and seriousness of their efforts. (Author/JM)

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THE COLLECTION, ANALYSIS, AND USE OF NEEDS ASSESSMENT DATA FOR THE DETERMINATION OF EDUCATIONAL PRIORITIES.

Robert T. Utz, Ph.D., University of Toledo, Toledo, Ohio 43606; and I. David Glick, Ph.D., SUNY, Oswego, New York 13126

The increased pressures for educational accountability suggest that the schools should solicit input from a variety of sources to determine the educational needs of students. This needs assessment data should include the views of a variety of concerned parties: parents, teachers, administrators, students, school board trustees, and the public at large. The collection, analysis, and use of such data presents a number of technical and political problems. This presentation will attempt to demonstrate: (1) how needs assessment data can be systematically and comprehensively collected by use of Likert-type instruments; (2) how this data can then be organized and analyzed by the use of a mathematical procedure; (3) the feasibility of several implementation models for prioritizing the critical needs identified in the organized needs assessment data, models which will involve a varying combination of lay and professional groups; and (4) some of the implications for ultimate responsibility in determining if the needs assessment data has been appropriately utilized. The presentation will attempt to elaborate upon and more clearly operationalize previous work of the authors.[1]

[1]Glick, I. David, and Utz, Robert T. "OK! So You've Done A Needs Assessment...Now What Do You Do With The Data?" The Alberta School Trustee, 47:2-5; March, 1977.

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THE COLLECTION, ANALYSIS AND USE OF NEEDS ASSESSMENT DATA FOR THE DETERMINATION OF EDUCATIONAL PRIORITIES

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The increased presures for educational accountability stem from a variety of sources. The decline of test scores of high school graduates in both Canada and the Unites States has pushed schools in the direction of more specific identification of desired basic skills. Certainly the current "taxpayers revolt" has pushed many school districts to institute accountability models in their educational planning. These accountability models include a Needs Assessment component, one that necessitates the solicitation of values from all relevant parties: parents, citizens, school staff and students.

Collection of data on the values of these audiences can and has been done in a variety of ways. These are frequently set up in a Likert type format as is done in the scale in Form I (pp. 1-2 of the Appendix). In this case items pertaining to preference with respect to a range of educational subjects are presented in two different dimensions: one which asks the respondee to state his views on what "should exist" in our schools and a second dimension of what "actually exists" in our schools. In this way, a "discrepancy score" can be obtained which focuses of the educational changes which the respondee sees as needed. In the case of the category "actually exists," the "one" column represents "not at all" and the five category means "a great deal." Frequencies, standard deviations, and means for each item in both categories can then be calculated.

Form I can be seen as a "shotgun" kind of approach which aims at a broad variety of educational concerns. If a more specific look at

views concerning the basic subjects is desired, Form II (pp. 3-4 of Appendix) zeroes in on eight basic subject areas. Scores on this type of scale would be calculated in a similar way to those on Form I, with the only variations being that this form lack the "actually exists" category and that the response format is a more typical Likert pattern. Both of these formats present some problems, particularly with respect to providing enough difference in the mean responses. Respondees frequently want "more of everything," and since they don't have to prioritize their values, many of the means on the items tend to be high, with little difference between them. These problems suggest several other possible approaches which can force respondees to prioritize their wants. Form III (pp. 5-6) shows one variation which requires the respondee to choose how he would allot $100 over four skill areas in each of the eight subject areas identified in Form II. This method clearly requires the subject to establish priorities within clearly defined limits. Note, however, that the format requires only that he decide within a particular subject area with respect to each $100 allotment. Form IV (pp. 7-8) demonstrates several variations from Form III. In this case the choices are to be made across subject areas, thus forcing some prioritizing across the eight identified areas as opposed to the within comparisons done in Form III. The response format differs in that rather than using dollar figures to allot, the subject must rank the four skill areas presented. This can be seen a somewhat less complicated format for the subject to handle, and would yield information less precise than the format presented in Form III. Although not shown here, the characteristics of Forms III and IV can be exchanged to produce several more varieties that might be more appropriate for a particular

educational population. (For example, the rankings could be utilized within the specific subject matter clusters.)

Different problems are presented when devising questionnaires for elementary populations. Our experience suggests that fourth or fifth grade students are the lower limit of a feasible audience. The kind of language simplification and limited response categories presented on page 9 of the Appendix were found appropriate for a fifth grade audience.

Collection of data on audience attitudes presents some problems. Since both staff and students are more or less captive audiences, the generally minor problems presented by these populations will not be addressed. Getting responses from parents and citizens, however, presents considerable problems because the use of mailed questionnaires is virtually the only means of getting results. Several techniques and procedures have been found to maimize returns. (These are consistent with those suggested in the literature.) Short forms, return envelopes, and having respondees receive the questionnaires towards the end of the week have helped to gain a larger response. Guaranteeing the respondent a summary of the research results also helps increase responses. Follow-up mailings help, but they will not generally produce more than one-half of the number of responses to the original solicitation. The latter two procedures obviously produce significantly greater costs and must be weighed in that context. The social class of the respondent and the general interest of the topic are variables which can not be manipulated but which greatly effect response rates. Our experience suggests that a moderate interest questionnaire sent to a primarily lower class population will not generate more than a 20-30% return rate; by contrast, a high interest questionnaire sent to a largely middle class population

will often generate as much as a 75% response rate. A high precentage of non-returnees obviously lessens the generalizability of the results. In perspective however, the non-respondee to a school questionnaire can be seen as somewhat analogous to the non-voter in an election; he or she gives up their voice in the decision making process. Srtictly speaking, the data gathered is not gathered primarily for research purposes.

Once the data has been gathered, it must be scored and put in some manageable form. The use of an indexing formula, such as that presented in the accompanying article (pp. 12 of the Appendix) can be used to furnish an agreement index score. A one to five scoring scheme can also be used with any Likert style scale to yield scores of interpretable proportions. Means can than be calculated, along with frequencies for each response category (or standard deviations for more sophisticated personnel). In any case, the data should be presented in a form in which the data can be listed by rankings for relatively simple interpretation.

The compiled and prioritized data can be used in a variety of implementation models. Those presented in the article (on page 13 of the Appendix) present a diverse pattern, emphasizing a varying degree and kind of lay involvement. The latter is a necessary involvement; it should and can not, however, be any kind of substitute for professional responsibility and expertise. The identification of problems, needs, and concerns is certainly a legitimate public concern; the determination of methods, strategies, and procedures to deal with those problems falls within the realm of professional responsibility. Educators must not take needs assessment input lightly; our data suggests strongly (as do the most recent Gallup Polles on Education) that the public is most concerned about discipline in the schools and the development of basic verbal and number skills. Educators must seriously attempt to deal with these problems,

and School Boards/Trustees should assess the legitimacy and seriousness of those efforts.

APPENDIX
Page 1 of 2

1

Type of Respondent F S P Sex M F

Grade (student only) 9 10 11 12

	Should Exist in our school	Actually Exists in our school
1. The school gives adequate emphasis to teaching basic skills (reading, writing, arithmetic).	1 2 3 4 5	1 2 3 4 5
2. Current social studies programs help students develop the skills necessary in the modern world.	1 2 3 4 5	1 2 3 4 5
3. Our school's extracurricular program meets the needs of most students.	1 2 3 4 5	1 2 3 4 5
4. Discipline at the school is firm and fair and sufficient for an orderly educational process.	1 2 3 4 5	1 2 3 4 5
5. The school communicates effectively with all segments of the community it serves.	1 2 3 4 5	1 2 3 4 5
6. Programs at our school enable high school students to find jobs in areas of rapidly expanding technology (i.e., computers, electronics).	1 2 3 4 5	1 2 3 4 5
7. Our school provides students with mature attitudes toward the responsibilities of family life.	1 2 3 4 5	1 2 3 4 5
8. Current school programs stress the dangers of the inappropriate use of drugs.	1 2 3 4 5	1 2 3 4 5
9. Students at our school have the opportunity to act or respond as individuals within the school community.	1 2 3 4 5	1 2 3 4 5
10. Administrators and teachers at the school are accessible to parents and students.	1 2 3 4 5	1 2 3 4 5
11. Current course offerings at the school are primarily directed toward college prep students.	1 2 3 4 5	1 2 3 4 5
12. The physical education facilities at our school are inadequate for current and future needs.	1 2 3 4 5	1 2 3 4 5
13. Current school programs and activities prepare students for leisure time activities.	1 2 3 4 5	1 2 3 4 5
14. Rules and regulations for the school are communicated in a way likely to bring student and parent acceptance.	1 2 3 4 5	1 2 3 4 5
15. Responsible use of credit and borrowing is stressed in school programs.	1 2 3 4 5	1 2 3 4 5
16. The educational program at our school teaches high school graduates to make logical and intelligent choices in voting.	1 2 3 4 5	1 2 3 4 5
17. Current school programs present sex information appropriate to the age level of students in a tasteful manner.	1 2 3 4 5	1 2 3 4 5
18. The vocational skills center at our school should emphasize training for the service occupations.	1 2 3 4 5	1 2 3 4 5
19. Student teachers contribute to the success of school programs.	1 2 3 4 5	1 2 3 4 5
20. High school programs that include on-the-job work experience for all students contribute to readiness for the world of work.	1 2 3 4 5	1 2 3 4 5
21. School rules and regulations help students become aware of the influence of their behavior on others.	1 2 3 4 5	1 2 3 4 5
22. Teachers at the school use progressive teaching methods.	1 2 3 4 5	1 2 3 4 5
23. Students at the school have the opportunity and are encouraged to make contributions regarding school rules and regulations.	1 2 3 4 5	1 2 3 4 5
24. The dangers involved in the use of alcohol and tobacco are currently presented to students attending our school.	1 2 3 4 5	1 2 3 4 5
25. Current school (English) programs help students develop the communications skills necessary in the modern world.	1 2 3 4 5	1 2 3 4 5
26. Vocational guidance programs at our school provide career choice information to all interested students.	1 2 3 4 5	1 2 3 4 5
27. The athletic program of the school prepares students to use sports or exercise as a means of relaxation.	1 2 3 4 5	1 2 3 4 5
28. Current school courses in all subject areas help students determine between right and wrong.	1 2 3 4 5	1 2 3 4 5
29. The educational program at our school teaches students ways to avoid communicable diseases (i.e., measles, mumps, V.D.).	1 2 3 4 5	1 2 3 4 5

2

Type of Respondent F S P Sex M F Page 2 of 2

Grade (student only) 9 10 11 12

	Should Exist in our school	Actually Exists in our school
30. School programs provide social experiences to help students work as individuals and as group members.	1 2 3 4 5	1 2 3 4 5
31. Current school programs give high school graduates an understanding of the rights and responsibilities included in the American legal system.	1 2 3 4 5	1 2 3 4 5
32. Student report cards provide accurate information to students and parents regarding progress toward course objectives.	1 2 3 4 5	1 2 3 4 5
33. Students at our school are encouraged to be open to new ideas and different points of view.	1 2 3 4 5	1 2 3 4 5
34. School programs teach our students wise consumer habits reflecting both personal and social requirements of our society.	1 2 3 4 5	1 2 3 4 5
35. Current programs at our school provide high school graduates with a basic understanding of the American political system.	1 2 3 4 5	1 2 3 4 5
36. The school provides a wide variety of clubs and interest groups for students.	1 2 3 4 5	1 2 3 4 5
37. The importance of mental health as well as awareness of the nature of mental disorders are included in the school's program.	1 2 3 4 5	1 2 3 4 5
38. Current school math programs help students develop the skills necessary to function in our society.	1 2 3 4 5	1 2 3 4 5
39. Current school programs help students develop ethical and responsible conduct in our contemporary society.	1 2 3 4 5	1 2 3 4 5
40. The skill center architecture should conform with the architecture of the school.	1 2 3 4 5	1 2 3 4 5

NEEDS ASSESSMENT QUESTIONNAIRE

We would like your opinions on the following educational issues. Please rate the four statements relevant to the different school programs as to how much you agree or disagree with their importance. As a practice exercise, consider the following sample question:

Assemblies at our school should give more emphasis to:

a. presentations by outstanding public speakers — SA A ? D SD

b. programs relevant to the current interests of students — SA A ? D SD

c. presentations using a variety of audio-visual materials — SA A ? D SD

d. programs in which students themselves participate — SA A ? D SD

If you *strongly disagree* that presentations by outstanding public speakers should be given more emphasis in school assemblies, you would darken the column under *SD* opposite statement "a." If you *agree* that audio-visual presentations should be given more emphasis, darken the column under *A* opposite statement "c." If you have no opinion on an item or don't see a need for change, darken the middle column under "?". Please be sure to rate all four statements for each subject area.

Now please rate the four statements on the following eight academic areas in the same way. Please use pencil to mark your answers and, if you change your answer, erase the incorrect response completely.

1. The *Social Studies* program in our school should give greater emphasis to:

a. knowledge of our country's history and government — SA A ? D SD

b. a knowledge of western civilization — SA A ? D SD

c. problem solving skills in social studies — SA A ? D SD

d. skills relevant to everyday adult life — SA A ? D SD

2. The *Science* program in our school should give greater emphasis to:

a. knowledge of the basic facts and laws of science — SA A ? D SD

b science skills for use in everyday adult life — SA A ? D SD

c. problem solving skills using science concepts — SA A ? D SD

d. understanding principles of environmental protection — SA A ? D SD

3. The *Math* program in our school should give greater emphasis to:

a. developing accuracy in number problems — SA A ? D SD

b. knowledge of the basic rules and laws of mathematics — SA A ? D SD

c. problem solving skills using math concepts — SA A ? D SD

d. math skills required in everyday adult life — SA A ? D SD

4. *English* programs in our school should give greater emphasis to:

a. developing spelling skills — SA A ? D SD

b. development of reading comprehension skills — SA A ? D SD

c. understanding and appreciation of literature — SA A ? D SD

d. correct writing skills for composition — SA A ? D SD

5. *Foreign Language* programs in our school should give greater emphasis to:

   a. translating the written foreign language into English
   b. conversational skills in the foreign language
   c. writing fluently in the foreign language
   d. understanding and appreciating literature in the foreign language

6. *Vocational Education* programs in our school should give greater emphasis to:

   a. developing vocational skills applicable to a wide variety of job opportunities
   b. developing specific skills for specific jobs
   c. providing field opportunities for on-the-job experience
   d. developing basic skills in reading, writing, and math

7. *Physical Education* programs in our school should give greater emphasis to:

   a. developing skills in team sports
   b. developing individual skills for use in adult leisure time
   c. understanding principles of healthful living
   d. developing knowledge of how the body functions

8. *Art* and *Music* programs in our school should give greater emphasis to:

   a. development of individual skills for all students
   b. developing advanced skills for the more talented students
   c. developing an appreciation and understanding of art and music
   d. development of art and music skills useful in adult life

5

NEEDS ASSESSMENT QUESTIONNAIRE

We would like your opinion on the following educational issues. Please examine the four goal statements about each of the eight educational programs listed below. You have a possible $100 to spend in multiples of $10 on each of the eight programs. You may spend all of the money on one goal statement or distribute it among two, three, or all four goals in amounts of $10. You do not have to spend all of the money. The amount you spend on each goal statement is an indication of how important you believe it is. Mark your choices by darkening the answer blank that matches the amount you wish to spend. Please use a soft pencil and, if you change your answer, erase the incorrect blank completely.

As a sample exercise, consider the following options relating to spending money for school assemblies.

If you had $100 to spend on *school assembly programs*, how much would you spend on each of the following:

a. presentations by outstanding public speakers

b. programs on the current interests of students

c. presentations using audio-visual materials

d. programs in which students themselves participate

In this case, the person has chosen to spend $40 of his $100 on current interest programs, $30 on presentations by outstanding public speakers, $20 on programs in which students themselves participate, and $10 on presentations using audio-visual materials.

• • • • • • • • • • • • •

Now please follow the same procedure with regard to the following eight educational programs. Please remember to use pencil. If you have questions, please call 729-8111, ext. 286, for additional information.

1. If you had $100 to spend on school *Social Studies* programs, how much money would you spend to develop each of the following:

   a. knowledge of our country's history and government

   b. a knowledge of western civilization

   c. problem solving skills in Social Studies

   d. skills for use in everyday adult life

2. If you had $100 to spend on school *Science* programs, how much money would you spend to develop each of the following:

   a. knowledge of the basic facts and laws of Science

   b. Science skills for use in everyday adult life

   c. problem solving skills using Science concepts

   d. understanding principles of environmental protection

3. If you had $100 to spend on school *Math* programs, how much money would you spend to develop each of the following:

   a. greater accuracy in number problems

   b. knowledge of the basic rules and laws of Mathematics

   c. problem solving skills using Math concepts

   d. Math skills required in everyday adult life

4. If you had $100 to spend on school *English* programs, how much money would you spend to develop each of the following:

   a. spelling skills — $ 0 10 20 30 40 50 60 70 80 90 100

   b. reading skills — $ 0 10 20 30 40 50 60 70 80 90 100

   c. understanding and appreciation of literature — $ 0 10 20 30 40 50 60 70 80 90 100

   d. writing skills for composition — $ 0 10 20 30 40 50 60 70 80 90 100

5. If you had $100 to spend on school *Foreign Language* programs, how much money would you spend to develop each of the following:

   a. translating the written foreign language / to English — $ 0 10 20 30 40 50 60 70 80 90 100

   b. conversational skills in the foreign language — $ 0 10 20 30 40 50 60 70 80 90 100

   c. writing in the foreign language — $ 0 10 20 30 40 50 60 70 80 90 100

   d. understanding and appreciating literature in the foreign language — $ 0 10 20 30 40 50 60 70 80 90 100

6. If you had $100 to spend on school *Vocational Education* programs, how much would you spend to develop each of the following:

   a. vocational skills applicable to a wide variety of job opportunities — $ 0 10 20 30 40 50 60 70 80 90 100

   b. specific skills for specific jobs — $ 0 10 20 30 40 50 60 70 80 90 100

   c. field opportunities for on-the-job experience — $ 0 10 20 30 40 50 60 70 80 90 100

   d. basic skills in reading, writing, and math — $ 0 10 20 30 40 50 60 70 80 90 100

7. If you had $100 to spend on school *Physical Education* programs, how much would you spend to develop each of the following:

   a. skills in team sports — $ 0 10 20 30 40 50 60 70 80 90 100

   b. individual skills for use in adult leisure time — $ 0 10 20 30 40 50 60 70 80 90 100

   c. understanding principles of healthful living — $ 0 10 20 30 40 50 60 70 80 90 100

   d. developing knowledge of how the body functions — $ 0 10 20 30 40 50 60 70 80 90 100

8. If you had $100 to spend on school *Art* and *Music* programs, how much would you spend to develop each of the following:

   a. greater skills for all students — $ 0 10 20 30 40 50 60 70 80 90 100

   b. advanced skills for the more advanced students — $ 0 10 20 30 40 50 60 70 80 90 100

   c. appreciation and understanding of art and music — $ 0 10 20 30 40 50 60 70 80 90 100

   d. art and music skills useful in adult life — $ 0 10 20 30 40 50 60 70 80 90 100

Dear

We would like you to help *your* school in the development of educational goals by filling out this questionnaire. Goal statements are arranged in groups of four, and you are to indicate the importance of each goal by ranking them. Give one goal top priority by penciling the slot with the number "1." For second priority, pencil in the slot with the number "2" and so on. Check the example below:

Be able to write a paragraph on a given topic. 1 ■ 3 4

Be able to divide three digit numbers by three digit numbers. 1 2 ■ 4

To understand the contributions of science to the modern world. 1 2 3 ■

To know the basic principles of the Declaration of Independence. ■ 2 3 4

Please use a number two lead pencil in filling out your answer. If you have any questions, call 729-5111, ext. 286.

NEEDS ASSESSMENT QUESTIONNAIRE

1.1 Be able to write and talk in a manner which others can understand 1 2 3 4

1.2 Have a knowledge of problem solving using math concepts 1 2 3 4

1.3 Have a knowledge of the effects of industry on the environment 1 2 3 4

1.4 Understand the basic rights and the responsibilities of citizenship 1 2 3 4

2.1 Learn ways to stay in shape and control weight for post school life 1 2 3 4

2.2 Receive vocational training in service occupations (ex., repairman, gas station attendant). 1 2 3 4

2.3 Develop reading comprehension skills. 1 2 3 4

2.4 Have a knowledge of the basic rules and laws of mathematics. 1 2 3 4

3.1 Have a basic knowledge of the facts and principles of science. 1 2 3 4

3.2 Have a basic knowledge of American History and the political system. 1 2 3 4

3.3 Understand the importance of mental health and the nature of mental disorders. 1 2 3 4

3.4 Have experiences working on actual jobs. 1 2 3 4

4.1 Develop correct writing skills for composition. 1 2 3 4

4.2 Have technical training in skills necessary to enter work involved with computers, electronics, etc. 1 2 3 4

4.3 Develop skills in handling personal financial affairs. 1 2 3 4

4.4 Have a knowledge of how science can be used in everyday adult life. 1 2 3 4

5.1	Have a knowledge of the basic rules and laws of mathematics.	1 2 3 4
5.2	Have a knowledge of how science can be used in everyday adult life.	1 2 3 4
5.3	Have experiences working in the community at actual jobs.	1 2 3 4
5.4	Be able to write and talk in a manner which others can understand.	1 2 3 4
6.1	Understand his basic rights and the responsibilities of citizenship.	1 2 3 4
6.2	Be able to use math skills necessary to function in society.	1 2 3 4
6.3	Have a basic knowledge of the facts and principles of science.	1 2 3 4
6.4	Learn ways to stay in good physical condition and control weight for post school life.	1 2 3 4

ELEMENTARY

STUDENT QUESTIONNAIRE FORM

1.	I would like to spend more time on Reading at our school.	Yes	No	?
2.	I like to study current news in Social Studies.	Yes	No	?
3.	At our school, there are many things we can do after school.	Yes	No	?
4.	Discipline at our school is fair.	Yes	No	?
5.	I have learned a lot at school about how to use numbers.	Yes	No	?
6.	We have a lot of good places to play at our school.	Yes	No	?
7.	I like the Physical Education classes at our school.	Yes	No	?
8.	I think that the school rules are fair.	Yes	No	?
9.	I would like to spend more time studying how governments work.	Yes	No	?
10.	I like the way teachers at our school teach.	Yes	No	?
11.	I like the Art periods at our school.	Yes	No	?
12.	I like to do writing exercises in English.	Yes	No	?
13.	We learn at our school how to do the right thing.	Yes	No	?
14.	I have learned a lot at school about good health habits.	Yes	No	?
15.	I like the lunches served at our school.	Yes	No	?
16.	I think the way teachers grade is fair.	Yes	No	?
17.	I like to do arithmetic at our school.	Yes	No	?
18.	Our school building is a nice place to go to school.	Yes	No	?
19.	I like the Music periods at our school.	Yes	No	?
20.	I would like to spend more time studying Science at our school.	Yes	No	?

10

10

O.K.! So You've Done A Needs Assessment . . . Now, What Do You Do With The Data?

by

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and

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The Dialogue (at a project staff meeting on needs assessment):

Project Director — O.K., we've had these needs assessment returns for six weeks. How do we use them? Have you seen this stuff? Every item looks as important as the next! I can't make heads or tails out of any of it.

Staff Member — I've looked over the returns very carefully and I think we'll have to leave it up to each building principal to decide what should be done with it. If we had the funds we could ask the computer people to analyze it somehow, but we can't afford that.

Director — If we don't provide some sort of system or orderly way of dealing with this mess, the principals will scream bloody murder, or, more likely, just ignore the whole thing. We can't let either of these things occur. We've got too much at stake here. Everyone upstairs is counting on us. I'm going to ask each one of you to give this matter top priority and at next week's conference we'll decide what to do.

If this sounds familiar, you have done battle with the beast. You have done a needs assessment, but are not quite sure what to do with the findings. In this paper, a hypothetical needs assessment instrument for use with high school students, their parents and teachers, is presented. Second, a mathematical procedure is provided for organizing and analyzing the findings. Third, several models for prioritizing critical needs are suggested and evaluated. Finally, a few brief remarks about the appropriate focus for accountability in needs assessment activities are offered.

The Instrument: (See attached)

Editor's Note — These pages are lithographed as received, xerox copies of the original.

Type of Respondent ... Sex ... Page 1 of 2

Grade (student only) 9 10 11 12

	Should Exist in our school						Actually Exist in our school					
	2	1	2	3	4	5	2	1	2	3	4	5
1. The school gives adequate emphasis to teaching basic skills (reading, writing, arithmetic).												
2. Current social studies programs help students develop the skills necessary in the modern world.												
3. Our school's extracurricular program meets the needs of most students.												
4. Discipline at the school is firm and fair and sufficient for an orderly educational process.												
5. The school communicates effectively with all segments of the community it serves.												
6. Programs at our school enable high school students to find jobs in areas of rapidly expanding technology (i.e., computers, electronics).												
7. Our school provides students with mature attitudes toward the responsibilities of family life.												
8. Current school programs stress the dangers of the inappropriate use of drugs.												
9. Students at our school have the opportunity to act or respond as individuals within the school community.												
10. Administrators and teachers at the school are accessible to parents and students.												
11. Current course offerings at the school are primarily directed toward college prep students.												
12. The physical education facilities at our school are inadequate for current and future needs.												
13. Current school programs and activities prepare students for leisure time activities.												
14. Rules and regulations for the school are communicated in a way likely to bring student and parent acceptance.												
15. Responsible use of credit and borrowing is stressed in school programs.												
16. The educational program at our school teaches high school graduates to make logical and intelligent choices in voting.												
17. Current school programs present sex information appropriate to the age level of students in a tasteful manner.												
18. The vocational skills center at our school should emphasize training for the service occupations.												
19. Student teachers contribute to the success of school programs.												
20. High school programs that include on-the-job work experience for all students contribute to readiness for the world of work.												
21. School rules and regulations help students become aware of the influence of their behavior on others.												
22. Teachers at the school use progressive teaching methods.												
23. Students at the school have the opportunity and are encouraged to make contributions regarding school rules and regulations.												
24. The dangers involved in the use of alcohol and tobacco are currently presented to students attending our school.												
25. Current school (English) programs help students develop the communications skills necessary in the modern world.												
26. Vocational guidance programs at our school provide career choice information to all interested students.												
27. The athletic program of the school prepares students to use sports or exercise as a means of relaxation.												
28. Current school courses in all subject areas help students determine between right and wrong.												
29. The educational program at our school teaches students ways to avoid communicable diseases (i.e., measles, mumps, V.D.).												

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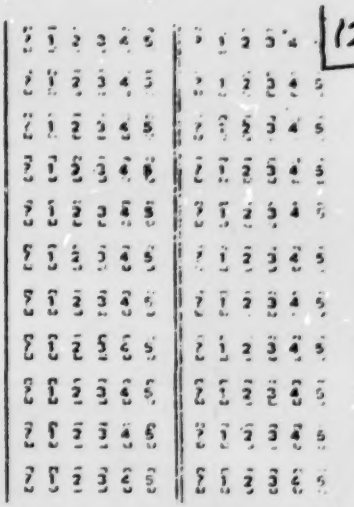
30. School programs provide social experiences to help students work as individuals and as group members.
31. Current school programs give high school graduates an understanding of the rights and responsibilities included in the American legal system.
32. Student report cards provide accurate information to students and parents regarding progress toward course objectives.
33. Students at our school are encouraged to be open to new ideas and different points of view.
34. School programs teach our students wise consumer habits reflecting both personal and social requirements of our society.
35. Current programs at our school provide high school graduates with a basic understanding of the American political system.
36. The school provides a wide variety of clubs and interest groups for students.
37. The importance of mental health as well as awareness of the nature of mental disorders are included in the school's program.
38. Current school math programs help students develop the skills necessary to function in our society.
39. Current school programs help students develop ethical and responsible conduct in our contemporary society.
40. The skill center architecture should conform with the architecture of the school.



12

The Instrument

Assuming that valid data have been retrieved for collating and analysis, what methodological issues must be considered before attempting to make decisions about which items deserve additional study?

In the first place, any one item from the instrument which received less than a 75 per cent response should be looked upon with caution, if not outright skepticism. It may be convenient to assume that non-responders (had they responded) would have responded in the same pattern the responders displayed, but the larger the percentage of non-responders, the more tenuous is this assumption. Secondly, those responses which are either question marks or omits, if totalling not more than ten (10) per cent of all responses to that item, can be considered as not particularly threatening to the credibility of that particular item's worth so long as at least an intial 75 per cent total response for that item was retrieved. Third, totalling the responses for each item, summing and then averaging them for the entire instrument is an inelegant and inadmissable procedure and must not be countenanced. Fourth and last, agreement trend indices are achievable for each item, across each sub-population surveyed, if a simple mathematical procedure is applied to the returns:

Given 84 responses out of 100 people surveyed

The responses to a hypothetical item were distributed in the following manner:

Should Exist In Our School						
	?	1	2	3	4	5 (omits)
n =	0	12	12	40	10	5 5

The necessary 75 per cent return criterion has been met; five (5) omits are less than ten (10) per cent of the responses; there were no question mark replies; and we assume that the data are not fictitious or otherwise invalid.

Step 1. Multiply the n for each numbered response category times that numerical value:

(n1) 12 x 1 = 12
(n2) 12 x 2 = 24
(n3) 40 x 3 = 120
(n4) 10 x 4 = 40
(n5) 5 x 5 = 25
N = 79 x = 221

Step 2. Multiply N (79) times the highest numerical category in the scale (5) to determine a **theoretical highest possible agreement index for all respondees to that item:** 79 x 5 = 395

Step 3. Divide the result of Step 2 into the obtained value from Step 1:

221
395 = .55 (agreement index)

NOTE: Had all 70 responses been in the lowest numerical response category (1), the result would have been:

79 x 1 = 79,
79/395 = 2.0 (the lowest possible agreement index)

Had all 79 responses been in the highest numerical response category (5), the result would have been:

79 x 5 = 395,
395/395 = 1.0 (the highest possible agreement index)

This abbreviated mathematical procedure provides an agreement index which ranges from .2 to 1.0 for each item, with 1.0 being the highest possible consensus and .2 being the lowest possible outcome. Having calculated an agreement index for each item in both the "should exist" and "actually exists" categories, the decision maker(s) must determine a method for selecting those items which deserve additional study. A possible option would be to a priori decide to look at only those items which achieve an agreement index of .7 or higher in the "should exist" category and a .5 or less agreement index in the "actually exists" category. Why make this type of judgment?

If we look at item #8 — **Current school programs stress the danger of the inappropriate use of drugs,** we might wish to expend considerable energy in studying this area only if our respondents see this topic as relatively high on their "should exist" agenda (.7 or higher) and view it somewhat hesitantly as "actually existing" in the curriculum (.5 or lower). Of course, a given decision maker(s) may wish to look at every item regardless of the agreement indices, and another person may want to use even more narrow index pairings (.8 should exist and .3 does exist) to select those items seen as critical to a given school setting. Whatever position is taken on selecting items for additional consideration, this procedure for obtaining agreement indices provides at least some criteria for making those decisions.

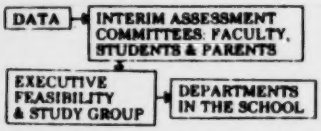
Prioritizing

Having calculated agreement indices for each of the 40 items, how does the decision maker(s) determine which of the critical needs to study first? Let us assume that 15 items have nearly the same or even identical agreement indices and that these items appear on the face of the indices to be of greater importance than the remaining 25 items. How does one solve the

problem of deciding (among apparently equally urgent needs) the order of priority for study and evaluation?

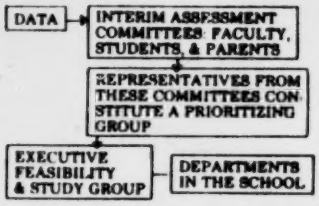
Five models, perhaps more, for prioritizing needs can be designed. Varying degrees of participation by the constituents who will ultimately be affected by subsequent decisions are apparent in each of the following models (all model examples are designed for departmentalized secondary buildings).

MODEL I


DATA
INTERIM ASSESSMENT COMMITTEES: FACULTY, STUDENTS & PARENTS
EXECUTIVE FEASIBILITY & STUDY GROUP
DEPARTMENTS IN THE SCHOOL

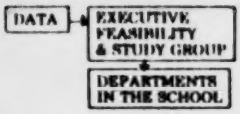
Critical needs and their agreement indices are sent to interim assessment committees (faculty, students, and parents) which each make their own prioritized listing for use by a feasibility and study group. This group, made up of department chairmen, curriculum coordinators, building administrators, and teacher association representatives, reviews the three prioritized lists and selects those items which are most feasible for implementation or critical for investigation in their building and departments. Finally, the departments in the building determine mechanisms for quickly implementing needed modifications or time-lines for studying the issues and gradual incorporation of new curricular/instructional components as appropriate.

MODEL II


DATA
INTERIM ASSESSMENT COMMITTEES: FACULTY, STUDENTS, & PARENTS
REPRESENTATIVES FROM THESE COMMITTEES CONSTITUTE A PRIORITIZING GROUP
EXECUTIVE FEASIBILITY & STUDY GROUP
DEPARTMENTS IN THE SCHOOL

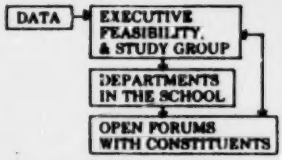
The same procedures as in Model I are used, except that the single prioritized list is made by a second level, representative committee. This group hammers out the compromises rather than having the three separate lists assessed by the Executive Group.

MODEL III



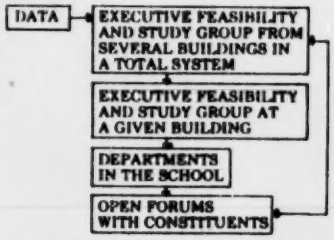
This model bypasses the constituent committees, is more direct and efficient, works faster, but does not provide for broad-based participation.

MODEL IV



Model IV is more inclusive of constituencies than Model III but is still administration-centered. The open forums do provide for some additional inputs, but the control for providing and deciding remains with the Executive Group.

MODEL V (System-Wide)


DATA
EXECUTIVE FEASIBILITY AND STUDY GROUP FROM SEVERAL BUILDINGS IN A TOTAL SYSTEM
EXECUTIVE FEASIBILITY AND STUDY GROUP AT A GIVEN BUILDING
DEPARTMENTS IN THE SCHOOL
OPEN FORUMS WITH CONSTITUENTS

Model V is an incorporation of Models III and IV with the emphasis on a school system with two or more secondary buildings.

Many other models are possible, including the notion of bypassing the Executive Group and going directly from constituent groups to the school departments. The practical and political problems of this type of model seem all too obvious given the usual hierarchical administrative structures of school buildings and systems. It should also be clear that none of these models includes a feedback loop to make them closed to the point of origin — the survey respondents. While some may disagree with this absence of an "accountability to the consumer" orientation in these models, it is the authors' position that both responsibility and authority for seeing to it that the data are utilized for optimum effect lie with the superintendent or the designees of that office. If the data are not effectively gathered, collated, indexed, prioritized and utilized, the board of education will take the necessary steps to present their concerns to their top executive employee. It is the elected school board that is the citizens' advocate, not the citizens themselves. Insofar as a broad constituency has been involved in providing needs assessment input, citizen concerns about lack of involvement at this stage will tend to be minimized.

Regardless of the needs assessment instrument used, procedures for scoring the criticality and obtaining consensus on the needs themselves are necessary. After critical needs are distilled from the less urgent concerns, prioritizing must be made or the entire range of findings remains to be assessed and evaluated. When priority lists are made, someone must make them. Whether it be the school leadership, the school's clients, or a combination of those two elements and the teaching staffs — some model of achieving a prioritized agenda must be employed. The prioritizing model selected will probably be dependent upon such factors as available time for prioritizing, the perceived need for a broad or restricted base for participation, costs, and the degrees of urgency or impetus for change or redirection in school programs held by the community-at-large or the influential figures who influence school practices and policies.

The suggestions for obtaining agreement indices, for deciding which needs are critical, and the models for prioritizing critical needs are offered in the hope that these steps may provide some orderly procedures for dealing with data which are often confusing at best and downright contradictory at their worst.

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